

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1.(original) An automatic gate (1) for permitting or preventing access by a person to a space or a transport vehicle, in particular to a boarding lounge or an aeroplane, comprising at least one vertical and elongated frame (2), at least one flap (3) which is mobile between a closed position in which this flap forms a barrier preventing the passage of a person along the frame and an open position in which the flap allows this passage, elements for reading an access ticket, in particular a ticket or an access card, elements for controlling the displacement of the flap (3) between the two abovementioned positions, a lateral face of the frame (2) adjacent to the passage of the person comprising at least two superposed rows of detection cells (C1 - C33) cooperating with elements for preventing the opening of the flap (3) or for maintaining the flap closed when these cells detect an abnormal situation, one of the rows, called high or upper row, extending to both sides of the flap (3) above a line (L) situated at the mid-height of the frame and the other row called middle, being situated close to this line.

2.(original) Automatic gate according to claim 1, characterized in that it comprises moreover a third row, called low, of at least one cell situated below line (L).

3.(currently amended) Automatic gate (1) according to claim 1 ~~one of claims 1 or 2~~ for permitting or preventing access by a person to a space or a transport vehicle, in particular to a boarding lounge or an aeroplane, comprising at least one vertical and elongated frame (2) constituting a closed box, the gate (1) comprising, at least one flap (3) which is mobile between a closed position in which this flap (3) forms a barrier preventing the passage of a person along the frame and an open position in which the flap allows this passage, the end upstream of the frame (2) relative to the person's direction of movement, comprising an input slot (4) for an access ticket and the end downstream of the frame (2) comprising an output slot (5) for this ticket, the frame (2) including elements for controlling the displacement of the flap (3) between the two abovementioned positions, a route (6) for displacement of the ticket between the input slot (4) and the output slot (5) for the ticket and elements for reading the ticket, characterized in that it comprises elements for preventing the person from accessing the output slot (5) in order to remove the ticket, when the flap (3) is in the position preventing the passage of the person.

4.(original) Automatic gate according to claim 3, characterized in that the distance (d) between the flap (3) and the output (5) of the ticket is such that when the flap (3) is in the position preventing the passage of a person, the latter cannot access the ticket output (5) in order to remove the ticket.

5.(currently amended) Automatic gate according to claim 1 ~~one of claims 1 to 4~~, characterized in that the flap (3) is integral with the frame. (2).

6.(currently amended) Automatic gate according to claim 1 [[to 5]], characterized in that the flap (3) is mounted in rotation about an approximately horizontal axis (X-X') extending in the direction of the length of the frame (2).

7.(currently amended) Automatic gate according to claim 1 ~~one of claims 1 to 6~~, characterized in that in the position preventing the passage of the person, the flap (3) has a part projecting out of the frame (2) having the shape of a sector of a circle, the circular edge (3a) of this sector being directed upwards.

8. (currently amended) Automatic gate according to claim 1 ~~one of claims 1 to 7~~, characterized in that the elements for controlling the displacement of the flap (3) are constituted by the reading of a valid ticket, allowing the displacement of the flap.

9. (currently amended) Automatic gate according to claim 1 ~~one of claims 1 to 8~~, characterized in that the cells comprise at least three groups of cells, each of these groups being assigned to different detection functions.

10. (original) Automatic gate according to claim 9, characterized in that a first group of cells is assigned to a detection function ensuring the person's safety, a second group of cells is assigned to a detection function in order to allow counting of the persons and a third group is assigned to a function of detection of non-authorized and/or fraudulent passages.

11. (currently amended) Automatic gate according to claim 8 ~~one of claims 8 or 10~~, characterized in that at least one cell can belong simultaneously to two groups of cells in order to perform different functions depending on the group of cells to which the cell is assigned.

12. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 11~~, characterized in that the cells in  
the upper row comprised between the frame (2) entry end (4)  
and the flap (3) are suitable for detecting the entry of an  
adult and optionally of two or more persons in close  
proximity.

13. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 12~~, characterized in that the cells in  
the middle row comprised between the flap (3) and the frame  
(2) exit end are suitable for detecting the exit of a person  
after the opening of the flap (3).

14. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 13~~, characterized in that the cells in  
the lower row comprised between the frame (2) entry end (4)  
and the flap (3) are suitable for detecting the entry of a  
child.

15. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 14~~, characterized in that the detection  
of an adult pulling a trolley is carried out by the  
combination of at least one covered cell in the upper row  
simultaneously with the covering of at least two covered cells  
in the lower row, separated by a non-covered cell.

16. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 15~~, characterized in that the cells  
situated close to the flap (3) are assigned to the safety of  
the person vis-à-vis the ill-timed closing of the flap.

17. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 16~~, characterized in that the cells in  
the upper or middle rows, situated downstream of the flap are  
suitable for detecting the passage of a person or of a child  
from downstream to upstream of the gate and for controlling  
the closing of the flap in order to prevent the person from  
turning back.

18. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 17~~, characterized in that the frame (2)  
contains a microcomputer (8) suitable for receiving  
information from an external central control station (9), a  
reader (10) for the ticket introduced into the input slot (4)  
of the frame (2), cells for detection and in order to control,  
via an automaton (11) and a frequency variator (12), the  
operation of an electric motor (13) for displacing the flap  
(3) towards the opening or closing positions.

19. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 18~~, characterized in that the ticket has  
a magnetic strip (15), the frame (2) comprising elements for  
reading this magnetic strip (15) capable of reading the  
latter, whatever the position in which the ticket is  
introduced into the input.

20. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 19~~, characterized in that the frame (2)  
also comprises close to the ticket output (5), a module (20)  
for cutting the ticket and detaching from the latter a coupon  
(21) intended to be taken by the person, and a store (50, 51)  
for recovering the remaining part of the ticket.

21. (original) Automatic gate according to claim 20,  
characterized in that the frame (2) comprises between the  
displacement route (6) of the ticket and the module (20) for  
cutting the ticket, a module (24) for turning the latter over.

22. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 21~~, characterized in that the frame (2)  
contains a printer for printing a second ticket different from  
the ticket read by the reading elements, this printer being  
controlled as a function of the data read by a reader and  
information received from an external control station (9).

23. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 22~~, characterized in that the frame (2)  
comprises a second flap mounted in pivoting fashion inside the  
frame, close to the first flap (3), on an axis (X-X') shared  
with the latter, this flap projecting in the closed position,  
from the face of the frame (2) opposite to that from which the  
first flap (3) projects when it is in the closed position.

24. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 23~~, characterized in that the gate  
comprises a second frame (2c) parallel to the first and  
delimiting the passage, the second frame comprises a second  
flap (3b) cooperating with the first flap, the opening of the  
first and second flaps being controlled by the reading of a  
valid ticket and the elements associated with the opening of  
the passage.

25. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 24~~, characterized in that it comprises a  
sound or visual signal associated with each normal or abnormal  
passage situation.

26. (currently amended) Automatic gate according to claim  
1 ~~one of claims 1 to 25~~, characterized in that it has a



symmetrical architecture suitable for allowing passage either in one direction, or in the opposite direction.

27. (currently amended) Gate according to claim 1 ~~one of the preceding claims~~, characterized in that the high row comprises at least six cells (H1-H6) upstream of the flap.

28. (currently amended) Gate according to claim 1 ~~one of the preceding claims~~, characterized in that the high row comprises at least six cells (H7-H12) downstream of the flap.

29. (currently amended) Gate according to claim 1 ~~one of the preceding claims~~, characterized in that the middle row comprises at least six cells (M1-M6) upstream of the flap.

30. (currently amended) Gate according to claim 1 ~~one of the preceding claims~~, characterized in that the middle row comprises at least three cells (M7-M9) downstream of the flap.

31. (original) Gate according to claim 30, characterized in that the middle row comprises at least six cells (M7-M12) downstream of the flap.

32. (currently amended) Gate according to claim 29 ~~one of claims 29 to 31~~, characterized in that each cell of the middle row is arranged under a cell of the high row.

33. (currently amended) Gate according to claim 2 ~~one of claims 2 to 32~~, characterized in that the low row comprises a cell immediately downstream of the flap.

34. (currently amended) Gate according to claim 2 ~~one of claims 2 to 32~~, characterized in that the low row comprises two cells immediately upstream of the flap.

35. (currently amended) Gate according to claim 33 ~~one of claims 33 or 34~~, characterized in that each cell of the low row is arranged under a cell of the middle row.

36. (currently amended) Gate according to claim 1 ~~one of the preceding claims~~, characterized in that it comprises another flap arranged downstream of the flap, so that a high cell and/or a middle cell is located between the two flaps.

37. (currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that the presence of an adult is determined

by the simultaneous covering of a cell of the high row and a cell of the middle row superposed on the cell of the high row.

38. (currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that the presence of a child is determined by the covering of a cell of the middle row without a cell of the high row, superposed on the cell of the middle row being covered.

39. (currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that a fraud by crawling is determined when only one of the cells of the low row is covered.

40. (currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that a fraud and/or an intrusion is detected when a number of consecutive cells, in the same row covered simultaneously, is greater than a given number.

41. (currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that the entry of a person into the gate is determined when the most upstream middle cell (M1), and most

upstream high cell (H1) in the case of an adult, is covered at the same time as the following two cells (M2, M3) (H2 and H3 respectively ) are uncovered and that then the cells of the following columns (M2 then M3 and H2 then H3 respectively) are successively covered and that finally those of the two first columns (M1 then M2 and H1 then H2 respectively) are successively uncovered.

42.(currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that the gate comprises an almost ready state, allowing the advanced reading of an access ticket.

43.(currently amended) Method of controlling access according to ~~the preceding~~ claim 42, characterized in that if the gate is not ready after a given time, and an access ticket has been introduced via the ticket input slot, the ticket is returned by the ticket input slot.

44.(currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that if after a given time following an authorization of clearing the gate, the flap or flaps have not been cleared, the authorization is cancelled and the flaps closed.

45. (currently amended) Method of controlling access according to ~~the preceding~~ claim 44, characterized in that moreover if an access ticket has been introduced via a ticket input slot, the ticket is returned by the ticket input slot.

46. (currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that when an intrusion and/or when a fraud is detected, if the flap or flaps are open, they receive a command to close and/or a message is sent to a host system.

47. (currently amended) Method of controlling access for an automatic gate according to ~~the preceding~~ claim 46, characterized in that, following the intrusion, the flap or flaps are reopened only after a given time.

48. (currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that when an intrusion or a fraud is detected, it is signaled by a sound signal and/or a light signal which signals that access to the gate is forbidden.

49. (currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~,

characterized in that it comprises an evacuation mode, which can be activated locally, in which the gate is held open in order to allow free circulation.

50.(currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that it comprises a normally open mode in which the flap is open and unenergized and closes in case of intrusion and/or fraud.

51.(currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that it comprises a normally closed mode in which the flap is closed and unenergized and opens in case of authorized passage.

52.(currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that a zone of cells to both sides of the flap allows validation of their clearing by a person.

53.(currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that a zone of cells for counting is composed of three successive columns of cells, each column of cells

being successively covered then successively uncovered before validation of a passage.

54.(currently amended) Method of controlling access for an automatic gate according to claim 1 ~~one of claims 1 to 36~~, characterized in that a delay time exists which is engaged after at least certain of the clearing stages of the gate, an anomaly being detected if a following clearing stage of the gate has not occurred during this delay time.

55.(original) Method of controlling access for a automatic gate according to claim 54, characterized in that a delay time exists for the entry of a person into the gate after an authorization has been given to him.

56.(original) Method of controlling access for an automatic gate according to claim 54, characterized in that a delay time exists for clearing the flap or flaps by an authorized person after he has entered into the gate entry zone.

57.(original) Method of controlling access for an automatic gate according to claim 54, characterized in that a delay time exists for a person to leave the exit zone, after having cleared the flaps.